

Critical Thinking: Intellectual Standards Essential to Reasoning Well Within Every Domain of Human Thought, Part 3

By Linda Elder and Richard Paul

In the last two columns in this critical thinking series we briefly introduced and discussed the concept of intellectual standards in connection with natural languages. We presented nine essential intellectual standards: clarity, precision, accuracy, relevance, depth, breadth, logicalness, significance, and fairness. These nine intellectual standards are part of a much broader set of intellectual standards found in all natural languages. Natural, or ordinary, languages are those languages we speak every day and are to be distinguished from technical languages such as those developed in mathematics, formal logic, and other specialized fields. Throughout recorded history, scholars within disciplines and skilled thinkers in all parts of human life have applied universal intellectual standards to human reasoning, at differing levels and to varying degrees. The concept of criticality itself presupposes adherence to relevant intellectual standards (such as accuracy, relevance, logic, and so forth).

In this column, we briefly analyze the concept of intellectual standards as an intellectual construct. Further, we explore the important realization that though humans routinely use standards to determine what to believe and how to act, these standards are not always intellectual in nature.

Exploring the Concept of Standards

Every term in the English language (and in all ordinary languages) has established uses that are found in well-researched dictionaries. Thus, to conceptualize intellectual standards, it is important to consider established uses of the terms "intellectual" and "standards" (as well as related terms) and integrate insights from this analysis to formulate a reasonable conception of intellectual standards.

Beginning with the term standard or its synonym "criterion," consider the following definitions:

Standard applies to some measure, principle, model, etc. with which things of the same class are compared in order to determine their quantity, value, quality, etc. [standard of purity for drugs]. Criterion applies to a test or rule for measuring the excellence, fitness, or correctness of something [mere memory is no accurate criterion of intelligence]. (Wiley Publishing, 2007)

Thus standards and criteria are rules or principles used to determine the quality of something and, accordingly, whether to accept or reject it. These criteria are used to judge or decide upon something, and can usually be used synonymously for this purpose.

Standards Are Prevalent in Everyday Life

Humans routinely use judgment in determining what to accept and what to reject; this is impossible without standards or criteria. Consider the following examples, paying particular attention to the standards used to determine quality in each case:

- To determine whether a loaf of bread is of acceptable quality, we might use the following standards, among others: the degree of rise of the loaf,

inside texture, outside crust texture, thickness, lightness, and so forth. A pastry chef creating recipes would use not only global standards, such as these, for assessing the quality of bread but more precise and particular standards relevant to our taste and situation. These standards might include a specific degree of rise of the loaf, specific consistency of inner and outer texture, specific taste and weight of the loaf, and so forth. Once particular standards for a recipe have been determined, each loaf baked thereafter would be compared with the set criteria. The quality of each loaf would be judged based on these standards.

- To determine whether a tennis player under a coach's direction was likely to compete well at a particular level of play, the coach might first look at the average skill level of top contenders and use that skill level to formulate a set of standards by which to judge the competitiveness of the trainee's skills. Standards would be determined by considering back court performance, net court performance, fitness level, mental stamina under pressure, average first and second serve percentages, ratios of wins to errors, the player's "track record" against established players, and so on and comparing skills in these categories with the standards set by the top players.
- To assess the quality of an actor auditioning for a play the director might consider the quality and intonation of voice as well as the ability of the actor to deliver the lines in a convincing manner, to portray a given character accurately, to connect emotionally with the audience, and so forth. The director would have standards in mind—based in personal judgment regarding analysis of the play and the role of various characters in it—for each of these categories and compare audition performance with them.

The use of standards in human life is routine and pervasive. It is not possible to form judgments without, at least, presupposing standards. Moreover, for every skill area, there are standards to which people attempting to develop those skills aspire—in music, art, sports, parenting, marriage, public speaking, theatre, science, literature, architecture, indeed in every domain of human thought and action.

Of course, people are differently motivated and have varying capacities for development in any particular skill area. It might behoove everyone to consider the standards each strives to fulfill in living individual lives and to raise these standards to the conscious level. By taking command of standards, individuals take command of the thoughts, desires, and emotions that determine the quality of personal lives.

Exploring the Term Intellectual

Now that the common uses of the term standards and some sense of the role that standards play in human life have been outlined, we consider the term "intellectual." Grasping the meaning of this term requires considering not only the term intellectual but related terms such as "intelligent" and

"the intellect." Further, such an analysis requires tracing some important meanings implied by these terms and their interrelationships.

The term intellectual often means requiring the intellect or having or showing a high degree of intelligence. The term intellect implies the ability to reason or understand or to perceive relationships, differences, and so forth. It refers to that part of the mind that knows or understands. It may also imply the power of thought, great mental ability, or a high degree of intelligence. The terms intelligent or intelligence imply having or showing an alert mind, bright, perceptive, informed, clever, and wise. They also generally imply the ability to learn or understand from experience, the ability to acquire and retain knowledge, and the ability to respond quickly and successfully to new situations. And they characteristically imply or presuppose use of the faculty of reason in solving problems, directing conduct successfully, and making sound judgments (Wiley Publishing, 2007).

Note that within these meanings are several important concepts whose meanings are essential to understanding intellectual standards: to reason, to know or comprehend, and to make sound judgments. "To reason" entails the power to think rationally and logically and to draw inferences. "To understand" is the faculty by which one understands, often together with the resulting comprehension. It entails superior power of discernment or enlightened intelligence. "To make sound judgments" is the ability to assess situations or circumstances logically or accurately and draw reasonable conclusions. "To know or comprehend" means to have a clear perception or understanding of, to be sure of. It entails clear and certain mental apprehension (Wiley Publishing, 2007).

The term intellectual, when integrated with related terms, thus entails the use of sound reasoning and judgment in the pursuit of knowledge. It typically implies the superior powers of the intellect as well as the ability to use one's mind to make intelligent decisions, to use the faculty of reason in solving problems, and directing conduct successfully. Finally, it suggests clear perception and the logical drawing of inferences.

The Concept of Intellectual Standards

Taking into account the previous meanings and analysis, we conceptualize intellectual standards in the following way:

the standards necessary for making sound judgments or for reasoning well, for forming knowledge (as opposed to unsound beliefs), for intelligent understanding, and for thinking rationally and logically.

In short, we use the term intellectual standards to mean standards that further good judgment and rational understanding. They are essential for the mind's on-going awareness and assessment of the strengths and weaknesses in personal thinking and in the thinking of others. Whether focused on the

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inner structure of thought or its global qualities, intellectual standards are essential to functioning as reasonable, fairminded persons. However, most people rarely seem to reflect upon the standards they use to determine what to accept and what to reject. Consequently, and because the fulfillment of intellectual standards is not natural to the mind, people tend to use default standards, ones that are often highly egocentric and sociocentric. Conversely, fairminded critical thinkers recognize the primary role of meeting intellectual standards in living a fulfilling, rational life. They therefore routinely work to meet these standards. They typically recognize when they, or others, are failing to meet them.

Closing

In the next column we will detail some constellations of intellectual standards, thereby illuminating the interconnectedness of these standards as well as some fine distinctions among them. We will also differentiate between *micro intellectuals standards* and *macro intellectual standards*, and briefly discuss the common human problem of vested interest as a barrier to the adherence of intellectual standards. These theoretical distinctions are important, in order to help students learn to reason with skill within the disciplines.

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Linda Elder is an educational psychologist and president of the Foundation for Critical Thinking. Richard Paul is director of the Center for Critical Thinking and director of research of the Foundation for Critical Thinking, Tomales, CA: www.criticalthinking.org 

